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State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-14-122  
Relating to Certification of New Motor Vehicles

TOYOTA MOTORS CORPORATION

Pursuant to the authority vested in the Air Resources Board by the Health and Safety Code, Division 26, Part 5, Chapter 2; and

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Orders G-45-3 and G-45-4;

IT IS ORDERED AND RESOLVED: That 1988 model-year Toyota Motors Corporation exhaust emission control systems are certified as described below for gasoline-powered light-duty trucks:

<u>Engine Family</u>	<u>Displacement Liters (Cubic Inches)</u>	<u>Exhaust Emission Control Systems (Special Features)</u>
JTY2.4T5FBE3	2.4 (144.4)	Air Injection - Valve Exhaust Gas Recirculation Heated Oxygen Sensor Three-Way Catalyst (Electronic Port Fuel Injection)

Vehicle models, transmissions, engine codes and evaporative emission control families are listed on attachments.

The following are the emission standards for this engine family:

<u>Loaded Vehicle Weight</u>	<u>Hydrocarbons Grams per Mile</u>	<u>Carbon Monoxide Grams per mile</u>	<u>Nitrogen Oxides Grams per Mile</u>
3751-5750	0.50	9.0	1.0

The following are the certification emission values for this engine family:

<u>Loaded Vehicle Weight</u>	<u>Hydrocarbons Grams per Mile</u>	<u>Carbon Monoxide Grams per Mile</u>	<u>Nitrogen Oxides Grams per Mile</u>
3751-5750	0.23	2.8	0.2

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Gasoline-Powered Motor Vehicles".

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's "Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks" (Title 13, California Administrative Code, Section 2290) for the aforementioned model-year.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's high altitude requirements and highway emission standards as stipulated in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "California Motor Vehicle Tune-Up Label Specifications" (Title 13, California Administrative Code, Section 1965) for the aforementioned model year.


BE IT FURTHER RESOLVED: That the vehicle models listed have been granted an exemption from compliance with the requirements of the "Malfunction and Diagnostic System for 1988 and Subsequent Model Year[s] ..." (Title 13, California Administrative Code, Section 1968) for the aforementioned model year.

BE IT FURTHER RESOLVED: That for the listed vehicles, the manufacturer has submitted and the Executive Officer hereby approves the materials to demonstrate certification compliance with the Board's emission control system warranty regulations (Title 13, California Administrative Code, Section 2035 et seq.).

Vehicles certified under this Executive Order must conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this order and attachment.

Executed at El Monte, California this 26<sup>th</sup> day of August, 1987.

  
K. D. Drachand, Chief  
Mobile Source Division

## 17.11.00 Supplemental data sheets

## 1988 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

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Manufacturer Toyota Motor Corporation Engine Family JTY2.4T5FBE3  
Evaporative Family EV-E Engine Type 4 cyl. in-line  
Liters (CID) 2.4 (144.4)

## ABBREVIATIONS

Ignition System

CA-Centrifugal Advance  
ECU-Electronic Control Unit  
EI-Electronic Ignition  
ESAC-Electronic Spark Advance  
Control  
VA-Vacuum Advance  
VR-Vacuum Retard

Fuel System

CFI, CL, DID, DIP, EFI, MFI  
nV-nVenturi Carburetor

Exhaust Emissions Control System

AIP-Air Injection-Pump  
AIV-Air Injection-Valve  
DBC-Dual Bed Catalyst  
EGR-Exhaust Gas Recirculation  
EIC-Electronic Injection Control  
EM-Engine Modification  
OC-Oxidation Catalyst  
OS-Oxygen sensor  
HOS-Heated Oxygen Sensor  
SPL-Smoke Puff Limiter or  
Throttle Delay  
TOC-Trap Oxidizer, Continual  
TOP-Trap Oxidizer, Periodical  
TWC-Three-Way Catalyst  
WUOC-Warm-Up Oxidation Catalyst  
WUTWC-Warm-Up Three-Way Catalyst

Special Features

CCV-Combustion  
Chamber Valve  
CFI-Central Fuel  
Injection  
DID-Diesel  
Injection-  
Direct  
DIP-Diesel  
Injection-  
Prechamber  
EFI-Electronic  
Fuel Injection  
IC-Intercooler  
or aftercooler  
MFI-Mechanical  
Fuel Injection  
OBD-On-Board  
Diagnostics  
TC-Turbocharger

VEHICLE MODELS :

4-Runner 4WD  
RN61LG-MDEA  
-MSEA  
RN61LV-MSEA  
-PDEA  
-PSEA

Engine: Front x Mid.        Rear         
Drive: FWD        RWD        4WD Full time        4WD Part time x

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## 1988 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Page 2Passenger Cars      Light-Duty Trucks X Medium-Duty Vehicles      Gas X Diesel     Manufacturer Toyota Motor Corporation Engine family JTY2.4T5FBE3Liter (CID) 2.4 (144.4) Eng. Type 4 cyl. in-lineEmission Control Sys. (Special Features) AIV + EGR + HOS + TWC (EFI)

Engine code	Vehicle Models (If Coded see attachment) (Dyno Hp: Refer to 08.13.03.00)	Trans. Type	Equiv. Test Weight	Ign. System EEC, EI, ESAC Part No. [Computer] [Knock sensor]*1	Fuel System CL, EFI Part No. [Computer] [Air flow meter] [Injector]	EGR Valve Part No.	Catalyst Part No.
21 thru 24	RN61LG-MDEA -MSEA RN61LV-MSEA	M5	3,750 3,875	89661-35130 89615-35030 89615-35040	89661-35130 22250-35020 23250-35030	25620-35130	18450-73040
25 thru 28	RN61LV-PDEA -PSEA	A4	3,875				

Comments : See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP list for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

Note \*1 Maker : 89615-35030 : MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.

89615-35040 : NIPPONDENSO CO., LTD.